

IN THE CLAIMS:

This listing of claims will replace all prior versions, and listing, of claims in the application.

Listing of the Claims:

1. (Previously presented) A millimetre wave imaging apparatus comprising scanning means, focusing means and a plurality of receiver elements, the focusing means being physically interposed between the scanning means and the receiver elements, the scanning means comprising two rotatable prisms arranged to scan millimeter wave radiation from a field of view onto said focusing means in an elliptic fashion, the ellipse having a major and a minor axis of differing size at a focal place, and the receiver elements being arranged as a sparse two dimensional array comprising a plurality of linear arrays, the receivers in each linear array being adjacent, each linear array having an axis parallel to the minor axis, with the minor diameter being approximately equal to one of a) half of, and b) the whole of the spacing between adjacent receivers in a linear array, and the major axis size being approximately equal to the distance between adjacent linear arrays allowing ~~such that~~ focused radiation from a region of the field of view is to be incident upon at least ~~one~~two of the plurality of receiver elements during a cycle of the scanning means.

2. (Cancelled)

3. (Currently amended) ~~An apparatus~~ Apparatus according to Claim 1 wherein each prism is a wedge prism.

4. (Currently amended) ~~An apparatus~~ Apparatus according to Claim ~~[[2]]~~¹ wherein each prism is of uniform thickness and varying refractive index across a cross-section thereof.

5-8. (Cancelled)

9. (Previously presented) An apparatus according to Claim 1 wherein the prisms are arranged to rotate in opposite directions to each other.

10. (Currently amended) An apparatus according to Claim 1 wherein the prisms are arranged to produce an elliptical scan path in the focal plane formed by the receiver elements.

11-12. (Cancelled)

13. (Previously presented) An apparatus according to Claim 1 wherein the prisms are arranged to rotate at a rate of at least 25 revolutions per second.

14. (Cancelled)

15. (Currently amended) An apparatus according to ~~claim~~Claim 1 wherein the focusing means is a reflector lens.

16. (Original) An apparatus according to Claim 15 wherein the reflector lens comprises a first polarising element.

17. (Currently amended) An apparatus according to Claim ~~[[15]]~~16 wherein the reflector lens comprises a second polarising element arranged to reflect radiation transmitted by the first polarising element.

18. (Previously presented) An apparatus according to Claims 15 wherein the reflector lens comprises a polarisation altering element.

19. (Currently amended) Apparatus according to ~~claim~~Claim 1 wherein the scanning means, which is arranged to define an entrance pupil of the apparatus, is placed at the effective centre of curvature of the focusing means.